

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

UNSTARRED QUESTION NO:643
ANSWERED ON:20.07.2016
Flood Warning Centres
Kumar Shri Kunwar Sarvesh

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether early flood warning centres have been established and if so, the details thereof and the names of the rivers included;
- (b) whether remote sensing technology and Geological Information System (GIS) is being used for the purpose of flood management including early flood warning system and if so, the details thereof and the names of the rivers where such technology/system is being used;
- (c) whether the real time data is received from the satellite regarding flood-prone areas and if so, the details thereof; and
- (d) whether the Government propose to get the help of United States of American Flood Monitoring Organisations for availability of real time data of floods through satellite and if so, the details thereof?

Answer

THE MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)

- (a) Yes Madam. The list of flood warning centers and the rivers are included in Annexure-I.
- (b) Yes Madam. In a pilot mode mathematical models for rainfall runoff estimation (like MIKE-11 FF) are used for some of the sites in Damodar Basin, Godavari Basin, Mahanadi Basin & Chambal Basin.
- (c) Satellite only provides real time Quantitative Precipitation Estimation (QPE) and no advanced information on flood inundation is possible to derive. However, after the flooding is reported, it is possible to demarcate areas of inundation using satellite remote sensing data.

In order to meet specific requirements of flood forecasting, which is provided by central water commission, India Meteorological Department (IMD) operates Flood Meteorological Offices (FMOs) at thirteen locations viz., Agra, Ahmedabad, Asansol, Bhubaneswar, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, Patna, Srinagar, Bangaluru and Chennai. Apart from this, IMD also supports Damodar Valley

Corporation (DVC) by providing QPF for Damodar river basin areas for their flood forecasting activities. During the flood season, FMOs provide valuable meteorological support to the Central Water Commission (CWC) for issuing flood warnings in respect of the 43 rivers of India covering 146 river basins. CWC is working in close association with IMD and State Governments for timely flood forecast whenever the river water level rises above warning level.

To meet the requirement of State Governments, IMD Officers invariably attend all the meetings called by the State Governments for reviewing the preparedness on floods by various agencies.

- (d) No Madam.